UNITED NATIONS

ECONOMIC COMMISSION
FOR LATIN AMERICA AND
THE CARIBBEAN – ECLAC

Distr.
GENERAL

LC/G.1814(SES.25/19)
8 February 1994

ENGLISH
ORIGINAL: SPANISH

Twenty-fifth session
Cartagena, Colombia, 20-27 April 1994

THE ROLE OF THE ECLAC SECRETARIAT IN FOLLOWING UP THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT

94-12-1575

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Introduction

The purpose of this note is to establish some guidelines to help ECLAC incorporate into its work programme the topics dealt with in the decisions taken by the member States at the United Nations Conference on Environment and Development (UNCED). All of the areas proposed for action have been considered in Agenda 21 and coincide with the regional priorities noted in the document Sustainable Development: Changing Production Patterns, Social Equity and the Environment. These topics are: i) international trade and sustainable development; ii) technology: development, access and transfer; iii) information systems for decision-making; iv) environmental management capacity and critical elements of sustainability; v) biodiversity; vi) the economic value of water: a natural resource vital to development and social equity; and vii) transboundary movements of hazardous wastes.

1. The ECLAC position in the context of UNCED

ECLAC is in a position to propose to its member States effective technical and political instruments for meeting the region-wide challenges of sustainable development by adapting universal precepts to each country's circumstances. Moreover, it has formulated a frame of reference which attempts to reconcile environmentally sustainable processes of changing production patterns with social equity.[1]

Agenda 21 and the Rio Declaration on Environment and Development represent the main outputs of UNCED. These commitments, which reflect the views expressed in the various regional reports prepared during the preparatory phase of the Conference,[2] will guide the future initiatives and activities of all the bodies of the United Nations system. In this context, eradicating poverty by changing

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[1] See ECLAC, "Report of the twenty-fourth session of the Commission", Biennial Report (12 May 1990-15 April 1992) (E/1992/35; LC/G.1736-P), Santiago, Chile, Economic and Social Council, Official Records, Supplement No. 15, 1992; ECLAC, Changing Production Patterns with Social Equity: The Prime Task of Latin American and Caribbean Development in the 1990s (LC/G.1601-P), Santiago, Chile, March 1990, United Nations publication, Sales No. E.90.II.G.6; Tlatelolco Platform on Environment and Development (LC/G.1712), Santiago, Chile, January 1992, adopted by the ministers and representatives of the Latin American and Caribbean countries members of ECLAC at the Latin American and Caribbean Regional Preparatory Meeting for the United Nations Conference on Environment and Development.

[2] UNEP, Final Report of the Seventh Ministerial Meeting on the Environment in Latin America and the Caribbean (UNEP/LAC-IG.VII/4), October 1990; Latin American and Caribbean Commission on Development and Environment, Our Own Agenda, Washington, D.C., Inter-American Development Bank (IDB), United Nations Development Programme (UNDP), 1990; and ECLAC, Sustainable Development: Changing Production Patterns, Social Equity and the Environment (LC/G.1648/Rev.2-P), Santiago, Chile, May 1991, United Nations publication, Sales No. E.91.II.G.5.

production patterns becomes the linchpin of the strategies for achieving environmentally sustainable development in Latin America and the Caribbean.

To help countries change production patterns and take remedial action in the areas of social equity and environmental sustainability, ECLAC must reflect further on the relationships among economic, environmental and social policies. First, it must empirically verify the following three hypotheses:

i) That environmental degradation is more directly harmful to low-income social groups;

ii) That inadequate environmental policies have high economic and social costs which adversely affect the pace and quality of development;[3]

iii) That sustainable development must be based on a dynamic equilibrium in the use of all the forms of capital that comprise the development effort: human, natural, physical and financial capital, all in relation to institutional and cultural resources.[4]

Over time, in the course of a long-term work programme, attempts will be made to draw up a set of proposals on integrated economic, social and environmental policies aimed at enhancing competitive capacity in the countries of the region and reducing levels of environmental degradation, while simultaneously generating growing redistributive effects. In this context, ECLAC should try to consolidate its role as a political forum and as technical secretariat for the countries of the region.[5]

2. Changing production patterns, competitiveness and sustainable development

The results of the Rio Conference —depending on how they are interpreted— can markedly influence the potential of the Latin American and Caribbean countries to gain access to development in the short and medium term. One of the many probable consequences of UNCED is a progressive build-up of environmental regulations and protectionism in the developed countries. ECLAC could therefore elaborate a set of intersectoral action proposals designed to address the problems posed by that situation in political, economic and environmental terms.

Given the characteristics of the topic, the Commission cannot and should not treat it as merely a sectoral bureaucratic obligation; instead, all the divisions and programmes of ECLAC must take care to incorporate economic-environmental considerations into their work regarding the region's future development.

The Executive Secretary will be in charge of coordinating this process, with the support of all the divisions' programmes and projects. The Programme Planning and Operations Division will be responsible for intersectoral coordination.

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[3] For example, the number of deaths and absences from work has increased among the urban populations living in the periphery of metropolitan regions and capital cities, owing to the uncontrolled water, air and soil pollution caused by overdevelopment of such areas.

[4] ECLAC, Sustainable Development..., op. cit., p. 132.

[5] Ibid.

Some of the problems that could gradually emerge and influence the region's development process in the short and medium term are:

i) The progressive expansion of a "green" market where the ecological dimension is a priority and environmental "conservationism" can become a precondition for competitiveness;

ii) An increase in the number and the political clout of regional and extraregional non-governmental organizations which, teamed with domestic or foreign business sectors, could perpetrate spurious forms of "green protectionism";

iii) The disorganized proliferation of environmental laws and institutions in the countries of the region and throughout the world, which could lead to conflicts of interest with national and international institutions and legislation.

3. ECLAC activities and a preliminary outline of priorities

Below is a summary of a set of proposed activities for the ECLAC secretariat. In view of their intersectoral nature, they should be undertaken jointly in the Commission's various spheres of action. This list, which also reflects an order of priority, is based on the Tlatelolco Platform on Environment and Development, Agenda 21 and the Rio Declaration.

a) International trade and sustainable development

ECLAC should analyse the link between international trade and the environment, within the frame of reference of its strategy for the 1990s. In this context, international trade plays a vital role in determining models of economic activity and the use of resources in the light of environmental sustainability as a factor of competitiveness. Environmental protection will become an increasingly significant element of trade practices in the current decade, and hence a requirement if the region is to strengthen its position in the international market in the coming years.[6] The region must prepare itself to face these new barriers by constantly updating its technology and applying principles of "total eco-quality" in the generation, promotion and marketing of products in its export sectors, since this factor will become decisive for real competitiveness.

The developed countries have already established many protectionist barriers based on environmental considerations, and in the years to come they are very likely to demand that Latin America and the Caribbean uncritically assimilate the environmental management models prevailing in those countries, in exchange for greater access to their markets. Even in investment projects or bilateral negotiations, environmental policy will become an increasingly important element of conditionality.

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[6] These new requirements will take the form of trade barriers based on government policies that take environmental criteria into consideration, or on consumer pressure —especially in the developed countries— linked to new concepts of quality. It should be noted that the negotiation strategies used thus far to overcome barriers of this type will be much less likely to succeed in the near future.

In this context, environmental sustainability becomes crucial for enhancing the competitiveness of Latin America and the Caribbean, meaning that the imperative of adapting the region's production system to this new reality cannot be postponed.[7] At the same time, the countries of the region must make environmental protection feasible —through economic and sectoral planning and technological development— as a positive factor that must be included in their development and export strategies.

The danger that trade liberalization could aggravate environmental degradation in countries that depend heavily on the exploitation and export of natural resources is of widespread concern. ECLAC should study the importance of the role of the General Agreement on Tariffs and Trade (GATT) in this area to help the countries of the region to define their negotiating positions. This is particularly relevant in light of the fact that the link between trade and environmental policy will become a key aspect of the work of GATT, especially following the conclusion of the Uruguay Round.

In the area of research and empirical studies, the following activities are essential for the development of this strategy:

i) Determining the economic feasibility of significantly by raising the value added during the processing of raw materials exported by the region, and the time periods required to do so;

ii) Providing the region's Governments with arguments they can use to establish at the global level —in bilateral or multilateral forums— the principle that environmental issues should not serve as unjustified barriers (of still-dubious scientific validity) to international trade;[8]

iii) Supporting, together with other international organizations, the establishment of regional and subregional research programmes aimed at progressively reducing the region's technological dependence in the area of efficient, competitive and environmentally rational production processes;

iv) Promoting the conduct of studies and research on trends and forecasts for environment-based preferences in the target markets of all sectors, with a view to determining specifically how those trends could affect competitiveness.[9]

Even in this context —international trade and sustainable development— the subject of energy efficiency must be considered, in terms of both technology and management, as a vital factor in improving the competitiveness of the region's production sectors.[10] Although the topic is not specifically

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[7] According to ECLAC, Sustainable Development..., op. cit., p. 140, this process requires "an ongoing monitoring of the negotiations and progress made in the field of international trade and the environment. This follow-up should be supplemented by region-wide national and sectoral studies which permit the identification in detail of potential changes in the current comparative advantages...".

[8] ECLAC, Tlatelolco Platform..., op. cit.

[9] These preferences could relate inter alia to products whose use or production are non-polluting, international priorities concerning the elimination of inputs incompatible with the environment, etc.

[10] According to the World Bank, the demand for electric power in the developing countries is expanding at 8% a year, which represents roughly 50,000 megawatts of added capacity required annually. Owing to its hydroelectric potential, Latin America and the Caribbean could have a reasonable advantage over other regions of the world, whose energy development depends on highly contaminating fossil fuels that emit nitrogen and sulphur oxides and particles. However, serious efforts must be made to enhance

within the province of ECLAC, its economic and environmental implications call for study and research on the links between the energy sector and the macroeconomic policies of the countries of the region.[11]

In view of the importance attached to this topic in Agenda 21 and its relation to development and the environment, ECLAC should, in collaboration with the Latin American Energy Organization (OLADE), promote the convening of periodic regional and subregional meetings to determine the economic effects and environmental costs of the energy sector in different political and geographical scenarios.

b) Technology: development, access and transfer

The importance of international competitiveness based on the absorption of technological progress will continue to grow in the future. Thus, the process of changing production patterns with social equity and environmental sustainability will require the countries of the region not only to keep up to date technologically in each sector, but also to absorb environmentally clean technologies constantly and systematically into national production processes.[12]

The basic conditions for implementing this process are, first, that the countries of the region must have access to existing technologies and, second, that incentives must be created to promote a substantial increase in the region's capacity to develop indigenous technologies. In this regard, ECLAC, with the support of other bodies of the United Nations system and of donor countries, should stimulate debate on the urgent need to train specialized human resources, from the levels of basic and intermediate education to technical and higher education.

Given the size of the technological universe, it would be desirable to promote in the short term, with the support of the UNDP "Capacity 21" programme[13] the convening of a regional meeting of high-level experts to draw up a short list of spheres of action on which regional efforts should focus. Likewise, to the extent of its available financial and human resources, ECLAC should:

i) Analyse the characteristics and nature of trends in international competitiveness and technological progress, as well as their effects on Latin American and Caribbean industrial development;

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the efficiency of electrical systems, especially with regard to transmission —during which, in some cases, energy losses amount to over 30%— and the development of new technologies compatible with each country's natural resources. Similar improvements are required in the control of polluting emissions from oil refineries and from production processes in general (World Bank, World Development Report, 1992. Development and the Environment, Washington, D.C., Oxford University Press, 1992).

[11] In collaboration with the Economic Commission for Europe, ECLAC and the other regional commissions are participating in the project "Global Energy Efficiency 21".

[12] In the development and application of new, environmentally sound technologies, the management cycle for manufactured goods should be viewed holistically, from the production phase to the elimination phase ("cradle-to-grave management").

[13] The objectives of the "Capacity 21" programme are, inter alia, to formulate sustainable development strategies and programmes and projects to meet capacity-building requirements, strengthen scientific and technological research and development, enhance knowledge, information and databases and increase the participation of all actors in the decision-making process.

ii) Promote study and research on how regional economies become integrated into the world market, and how the trading potential of their natural resources and traditional exports are affected by the development of new technological alternatives;

iii) Foster research on the economic advantages of using clean technologies that minimize or substantially reduce the volume of waste resulting from production processes in general, and industrial processes in particular.

c) Information systems for decision-making

According to the proposals contained in chapter 8 of Agenda 21, it will be necessary, in the short and medium term, to carry out extensive and systematic studies to promote the integration of environmental sustainability criteria into economic management. In this regard, it will be necessary to establish a precise system of evaluation that interprets the crucial role of the environment as a source of natural capital and a factor of production. As the concept of sustainable development encompasses social, economic and environmental dimensions, it is also important that national accounting procedures are not restricted to measuring the production of goods and services that are conventionally remunerated.

To attain that objective, a common framework must be developed whereby the contributions made by all sectors of society, that are not included in the conventional national accounts, are included, to the extent consistent with sound theory and practicability, in a system of satellite accounts. It is important to seek alternatives for formulating and implementing concepts and methodologies through which environmental and socio-environmental costs can be incorporated into accounting systems and price-setting. Simultaneously and in coordination with the foregoing,[14] support should be provided at the country level for the establishment[15], inter alia, of data banks of environmental statistics and indicators to facilitate the configuration of an accounting system that reflects, with growing precision, the economic and social effects of environmental variables.

Based on the efforts already undertaken in this field by the Organisation for Economic Cooperation and Development (OECD), ECLAC is preparing to approach this problem through the "pressure-stress-response" formula, evaluating the state of the environment by disaggregating its natural elements (water, air, soil and living resources), which are influenced by pressures deriving from human activity and by the responses of economic and environmental agents.[16] The results of other initiatives in this field, such as the studies conducted by the United Nations Statistical Office (UNSTAT),[17] Canada[18] and the United

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[14] See General Assembly resolution 47/191 and Agenda 21, paragraph 40.13.

[15] See Agenda 21, chapter 40, Information for decision-making.

[16] Organisation for Economic Cooperation and Development (OECD), Report on the State of the Environment, 1991, Paris, 1991.

[17] United Nations, Department of International Economic and Social Affairs, Framework for the Development of Environment Statistics (ST/ESA/STAT/SER.M/078), Statistical Papers, Series M, No.78, New York, 1984. United Nations publication, Sales No. E.84.XVII.12.

[18] See Environment Canada, A State of the Environment Report. A Report on Canada's Progress Towards a National Set of Environmental Indicators, SOE Report, No. 91-1, Ottawa, January 1991.

Kingdom,[19] should also be considered in order to meet the basic objective of this task and produce background material that promotes the inclusion of new elements in the design of strategies for economic development in the countries of the region.

Information systems should be linked to the various areas of public administration and the private sector so that the evolution of environmental management and its relationship to economic management can be systematically evaluated. These evaluations should include, inter alia, analyses in the areas of organization and administration, legal systems, basic management tools and the training of a human resources base in this field.

Moreover, the sphere of action of the ECLAC statistical sector must be enlarged so that it will be in a position to support the development of interactive databases and economic planning models that can incorporate all multisectoral information and optimize the decision-making process.

ECLAC, in close cooperation with UNSTAT, UNEP and the countries of the region, should also promote the design of such improved national accounting systems and should test them in order to perfect these preliminary concepts and methods. Lastly, it should make them consistent with those proposed in the national accounts handbook prepared by the United Nations.[20]

d) Environmental management capacity and critical elements of sustainability

To meet the environmental challenges of the 1990s, the countries of the region must address the urgent need to improve current mechanisms for managing international trade and technological development. There are three main areas whose organizational and administrative aspects require action to make those mechanisms compatible with the principles of environmental management: i) human resources training in various types of management; ii) analysis of existing institutional and legal support systems; and iii) development of new instruments for managing international trade and technological development. Below are some brief comments on each of these areas:

i) With respect to regional human resources training for environmental management at all levels of government and in the private sector, ECLAC will periodically provide the Commission on Sustainable Development and the "Capacity 21" programme of UNDP with regional reports indicating the priorities that should be considered in the UNDP programme on capacity-building. These reports will focus on the demand for specialized human resources in the most basic aspects of environmental management that relate to the trends observed in international trade and to regional and international technology policies. Special attention should be given to ensuring ready access, on the part of all the countries of the region, to legal, technical and scientific information systems based in various bodies of the United Nations system.

ii) The region's policies on sustainable development should also provide a legal and institutional framework for addressing the situations that may arise from changes in production systems and from new

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[19] D.W. Pearce and others, The Development of Environmental Indicators. Final Report to the UK Department of the Environment, London, University College, April 1991.

[20] United Nations, System of National Accounts Handbook, Studies in Methods, Series F, No. 2, Rev. 4, New York, 1992.

requirements imposed on international trade. In view of the need to correct deficiencies and update many national and international legal instruments in the environmental field, it is important to advocate their revision, at the global and regional levels, to reflect new concepts of environmental sustainability. In this connection, ECLAC, in coordination with UNEP, should promote the convening of meetings of experts and multilateral seminars to foster dialogue and technical cooperation among member States, in order to improve the region's legislative and institutional capacity in the field of sustainable development.

iii) In Latin America and the Caribbean, significant shortfalls are also apparent in the area of management instruments used by the State, including both direct (public spending and investment and their methods of financing and regulation of agents) and indirect (supported by fiscal incentives or disincentives) instruments. Since the region's experience in this area is very limited, activities are needed to provide the countries with technical support in the framework of the institutional strengthening programme mentioned earlier. ECLAC, with the support of UNEP and UNDP, should carry out technical assistance activities simultaneously and in coordination with those of the UNDP "Capacity 21" programme, in order to promote more effective use of environmental management instruments at the national, regional, municipal and sectoral levels. It should also promote improvement of the legal and administrative instruments of environmental management systems and encourage the introduction and better use of updated management methods and techniques. Within this sphere of action, horizontal cooperation ties can be established with the other regional economic commissions.

e) Biodiversity

As a result of the growing impact of human activities on the natural environment, biodiversity has already declined considerably, a fact which poses a serious threat to human development. The specific priority actions of ECLAC in the areas of conserving and managing biodiversity in the region should be based on chapters 15 and 16 of Agenda 21, and undertaken jointly with UNEP, UNDP, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and United Nations University (UNU). Since biomes that are rich in biological diversity have potentially high value added in the international market, action must be taken to ensure that countries possessing such biomes will reap these economic benefits. Mechanisms through which part of these profits can be earmarked for preserving and promoting biodiversity itself should also be sought.

To establish a basis for estimating the economic value of biodiversity and designing a regional strategy for the rational use of this capital, the following activities are proposed, in accordance with the guidelines laid down in Agenda 21:

i) Stimulating intraregional and international cooperation in order to expand scientific and economic data on biodiversity and its role in the different ecosystems in which it occurs;

ii) Promoting the conduct of studies and supporting the formulation of projects aimed at accelerating the systematic training of human resources and strengthening research centres, laboratories and all the infrastructure needed to ensure that this factor plays a growing part in the region's economic development process;

iii) Linking activities for setting up national and regional information systems (see section c)) to technical measures for preparing inventories of environmental wealth, in order to improve them further;

iv) Promoting research and studies on international trade and biodiversity, with a view to a new institutional framework which, in contrast to the current arrangement, safeguards products originating from areas with high biological diversity;

v) Stimulating negotiations between the developed countries members of ECLAC and the countries of the region to progress towards the formulation of agreements or conventions that guarantee access to advanced training in biotechnology and pharmaceutical chemistry, and to data banks of decoded genetic sequences.

f) The economic value of water: a natural resource vital to development and social equity

Chapter 18 of Agenda 21 notes that the multisectoral nature of water resources development in the context of socio-economic development must be recognized, as well as the multi-interest utilization of water resources, ranging from drinking water to sewage systems, with various intermediate uses in industry, agriculture, urban development, hydropower generation, transport and recreation. Different ways of using water interact according to the development style and cultural traditions of each population group.

The development models historically adopted in Latin America and the Caribbean generated patterns of geographical siting of production, reflected mainly by the current situation in capital cities and metropolitan areas, where the most important human settlements are concentrated, as are the main sources of pollution at the regional level. In general, these urban centres tend to monopolize the means of production and domestic financial resources, while generating imbalances that promote external diseconomies and agglomeration. Their constant, rapid and disorderly growth has promoted water pollution and made it a serious threat to the health of their inhabitants and to the domestic economies themselves. In the region even more than in developed countries, the rational use of water requires more strenuous efforts to preserve and manage this resource, in large measure by managing and minimizing industrial and household wastes.

Urban sectors predominate in the region, representing over 60% of the total population, and consist mainly of poor and low-income groups that tend to agglomerate in the cities in the hope of finding better living conditions. Given the traditional absence of stable policies on basic sanitation, the region still shows a dismal record with regard to the final disposal of industrial and household wastes, which are generally dumped into freshwater streams or the sea with no treatment whatsoever. The importance of water as a resource in terms of both economic productivity and social well-being has not yet been duly evaluated, especially in Latin America and the Caribbean, even though most economic and social activities depend entirely on the supply and quality of freshwater.[21]

As their populations and economic activities expand, a number of cities in the region are rapidly nearing the limit of the capacity of their water supply sources. Consequently, they face the danger of

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[21] Chapter 18, paragraph 47 of Agenda 21 notes that "Safe water supplies and environmental sanitation are vital for protecting the environment, improving health and alleviating poverty. Safe water is also crucial to many traditional and cultural activities. An estimated 80 per cent of all diseases and over one third of deaths in developing countries are caused by the consumption of contaminated water, and on average as much as one tenth of each person's productive time is sacrificed to water-related diseases".

being forced either to slow down economic activity in their territory or to pay very high prices for water supplied from alternative sources that are not economically feasible and that ultimately require them to seek subsidies[22] to meet the demand of production sectors and of low- and middle-income consumers.

Average demand for freshwater in the region's urban centres amounts to 30% of total national supply. However, the geographical distribution of water sources often tends to be incompatible with the location of demand. This problem is compounded by the reduction of supply through the contamination of sources by household and industrial wastes. Thus, the rational management of production and water consumption requires that plans and programmes in this sector be integrated with national economic and social development policies. In this regard, the implementation of Agenda 21 requires ECLAC to work closely with other specialized bodies of the United Nations system in seeking intersectoral solutions to water supply problems; inter alia, this task involves determining the supply and use of this resource, costing projects and maintenance, and standardizing measurements of pollution levels and evaluating them in economic terms, in order to make realistic estimates of the public expenditure required by this sector.

In this context, ECLAC must perceive water as an economic good that can have a powerful influence on both development and levels of social equity. Thus, the formulas currently used to evaluate the real cost of various types of water use (domestic, urban, industrial, etc.) should be improved through processes of managing demand linked primarily to price-setting mechanisms. There is also a need to spur the development of new economic instruments that take into account opportunity costs and environmental externalities.

Another basic aspect of this strategy is the treatment of household and industrial wastes, which often are the main cause of pollution and of shortages in freshwater reserves. The economic and social costs (mainly health-related) of omitting this dimension from development and urbanization tend, in general, to be neither evaluated nor considered in sustainable development accounting. This topic also should be linked to water conservation programmes that promote the development of technologies for efficient water use and the adoption of appropriate policies to minimize urban and industrial wastes (industrial technology).

These problems are causing a steady rise in the region's mortality and morbidity rates, which directly affect productivity and accelerate the growing deterioration of domestic public health systems.[23]

This situation has generated an urgent need to use analytical studies, conducted both in and outside the region, on the relations among geography, population and investments, both public (infrastructure) and private (production sector), to help expedite the introduction of territorial management processes compatible with the region's economic and political capacities. This effort must be accompanied by proposals on relocating production processes currently taking place in unsuitable areas and on policies designed to decentralize productive activities.

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[22] In 1989, the mayor of Mexico City claimed that 60% of the city's water meters were out of order (The Wall Street Journal, 10 January 1989).

[23] According to the World Bank, op. cit., p. 47, "It is the poor [...] who bear the brunt of risks from contaminated water. [...] For example, a family in the top fifth income group in Peru, the Dominican Republic, or Ghana is, respectively, three, six, and twelve times more likely to have a house connection than a family in the bottom fifth income group in those countries". See also figure 2.2, p. 47.

In the short and medium term, ECLAC, in coordination with UNEP and the Pan American Health Organization (PAHO) and with their support, should encourage the countries of the region to carry out the following activities:

i) Studies on methods of intersectorally evaluating the real economic costs of the lack of integrated policies on water resource management;

ii) Research on development models aimed at reducing the costs of water collection, treatment and distribution services by promoting the use of appropriate and duly tested technologies, modernizing management systems and seeking alternative financing modalities that are compatible with the economic capacity of the countries of the region.

g) Transboundary movements of hazardous wastes

In section I of its resolution 44/226 of 22 December 1989, the General Assembly requested each regional commission, within existing resources, to contribute to the prevention of the illegal traffic in toxic and dangerous products and wastes and of transboundary movements thereof. This request entails the establishment of a surveillance system and evaluations of the effects of this traffic on the environment and on human health. The General Assembly also asked the regional commissions to interact among themselves (interregional horizontal cooperation) and cooperate with UNEP in carrying out such activities.

To help fulfil this mandate, it is necessary, first, to determine sources of financing and decide how to recruit the human resources required for its implementation, whether by redistributing posts or by another means.[24] The main short- and medium-term activities that should be carried out in this area are the following:

i) In coordination with the aforementioned tasks concerning the establishment of national and regional information systems (see section c)), ECLAC should provide technical support for linking those systems to a regional surveillance network on traffic in toxic and hazardous wastes and products, whose implementation still depends on the decisions taken regarding its financing;

ii) To complement this effort, the various international agreements relating to the topic in question should be disseminated at the institutional level in all the countries of the region, including the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, whose implementation could be linked to the States parties to the Bamako Convention on the Ban and the Import of All Forms of Hazardous Wastes into Africa and on the Control of Transboundary Movement of Hazardous Wastes within Africa, and to the Central American Convention on Environment and Development. At the same time, to the extent of its financial and technical capabilities, ECLAC should promote the convening of regional, subregional and interregional technical meetings to strengthen the region's negotiating position in this field and to seek areas of consensus that reconcile the diverse interests

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[24] The effective execution of these activities in Latin America and the Caribbean will depend to a large extent on the experience gained by the Economic and Social Commission for Asia and the Pacific in its preliminary evaluation of illegal traffic in wastes, carried out jointly with UNEP.

of the countries of Latin America and the Caribbean.[25] The exchange of experiences and technical cooperation with the Economic Commission for Europe and the other regional commissions should also be considered;

iii) Promoting the study of the economic factors that determine the region's access to foreign technologies together with the development of indigenous technologies, to prevent and minimize toxic and hazardous industrial wastes. Also, mechanisms should be devised to alert the Commission on Sustainable Development and the UNDP "Capacity 21" programme to the need to strengthen the region's institutional competence with respect to the management of such wastes,[26] with a view to exploring the possibility that international technical cooperation may help enhance the safety of transporting dangerous products and wastes at the national and international levels.

4. Other topics related to the follow-up of UNCED in the context of the proposal on development with social equity and environmental sustainability in Latin America and the Caribbean

Lastly, in accordance with the threefold objective of the proposed integrated development strategy, the countries of the region, in conducting activities to follow up UNCED, should systematically emphasize those which promote the development of human resources and the implementation of mechanisms to evaluate periodically, in economic terms, the results of applying the principles of sustainable development. However, care must be taken that this approach does not hamper or obstruct the region's steady progress towards greater levels of social equity.[27] In this specific area, ECLAC, with the collaboration of regional and international centres of academic excellence and with the support of UNDP, UNEP and UNU, will take charge of systematically carrying out the following activities:

i) Analysing the characteristics of the new phase of industrialization —which focuses on increasing added value— to determine their compatibility with requirements in the areas of social equity and environmental protection;

ii) Estimating the amount of financial resources needed to implement the process of sustainable development in the region, and identifying possible sources of financing, with special emphasis on the regionalization of additional international funds, through a mechanism that sets up a specific relationship between ECLAC and the Inter-American Development Bank (IDB); this alternative should be compared to the current arrangement, which grants exclusivity to the World Bank's Global Environment Facility (GEF);

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[25] The first such regional meeting, to analyse the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, was organized by ECLAC in late 1993 with funding from the Swiss Government and support from UNEP and the secretariat of the Convention.

[26] Intraregional movements of toxic and hazardous wastes will also be considered in this context.

[27] ECLAC, Social Equity and Changing Production Patterns: An Integrated Approach (LC/G.1701/Rev.1-P), Santiago, Chile, 1992. United Nations publication, Sales No. E.92.II.G.5.

iii) With the support of other organizations of the United Nations system, and especially of the Latin American Economic System (SELA), promoting research and technical assistance activities related to the economic policy measures that should be applied to stimulate the simultaneous enhancement of competitiveness, social equity and environmental sustainability;

iv) Carrying out microeconomic studies on the introduction of the environmental variable into small- and medium-scale enterprises, to generate feedback for policies that affect this sector.

UNITED NATIONS

ECONOMIC COMMISSION
FOR LATIN AMERICA
AND THE CARIBBEAN - ECLAC

Distr.
GENERAL

LC/G.1815
30 March 1994

ENGLISH
ORIGINAL: SPANISH

TECHNICAL COOPERATION AND CHANGING PRODUCTION PATTERNS WITH SOCIAL EQUITY

This document was originally prepared by the ECLAC Programme Planning and Operations Division for submission to the inter-agency meeting on horizontal cooperation organized by LAIA and SELA, which took place at Montevideo from 29 to 31 March 1993.

94-3-266

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I. INTRODUCTION

The consolidation and intensification of technical cooperation among developing countries (TCDC) in Latin America and the Caribbean should be seen in the context of the changes taking place on the global scene. In this dynamic framework, the development policies of the countries of the region have changed dramatically since the formulation of the Buenos Aires Plan of Action, adopted in 1978, which constituted the first world-wide legislative basis for TCDC. The key question is whether it is still practical to design cooperation policies from the perspectives that prevailed in the late 1970s, considering the new development policies being implemented in the region, especially since the effects of the crisis of the 1980s —or the "lost decade", as that period has deservedly been called— were largely overcome.

If the cooperation actions and policies of countries and agencies in the region do not reflect these changes in innovative ways, they are likely to miss the new opportunities for cooperation that are emerging in the region. In this view, the redefinition of the State's role, the incorporation of new agents into economic processes and the international political arena, changes in development models (and, ultimately, in sectoral development policies), environmental challenges and technological progress, as well as shortcomings in the social field, are only a few of the most obvious manifestations of the new setting for international technical cooperation in Latin America and the Caribbean. Accordingly, TCDC, as a specific modality for such cooperation, must take these developments into account. The most comprehensive and coherent characterization of this new context is found in the strategic proposal on changing production patterns with social equity, elaborated in large part by ECLAC.

The proposal to change production structures while simultaneously progressing towards greater social equity reflects the demand for modernization and social justice in the region, and involves revising the criteria which have predominated thus far in relation to the role of different economic agents, together with social needs and environmental imperatives. According to this strategic approach, TCDC should represent a means by which the countries of the region can cooperate in terms of realistic possibilities and feasible, effective collaboration among various agents, both public and private. To that end, the focus of cooperation policies should be more closely related to the countries' development policies.

The region's current situation offers ample opportunities for progress in that direction, especially in view of the convergence achieved in the area of macroeconomic policy, particularly with respect to the process of improving linkages with the world economy; the progress made in restoring and gradually consolidating democratic political systems; the consensus reached on the need for economic growth to benefit increasingly broad sectors of the population; and the inclusion of environmental issues on national development agendas. These signs of convergence can strengthen the already favourable context for rising levels of intraregional cooperation.

Considering that the prime task of Latin American and Caribbean development in the 1990s is to change production patterns with social equity, the ECLAC secretariat has formulated guidelines for

making progress in redressing economic deficiencies and social setbacks, so as to achieve sustained economic growth accompanied by greater social equity. These guidelines explicitly include the intensification of intraregional cooperation in a wide range of areas where it can play a catalytic role in the strategy of changing production patterns with social equity.

II. THE GENERAL CONTEXT OF TCDC

1. Crisis, changing production patterns and the new setting for TCDC

One of the costly lessons learned from the "lost decade" was that cooperation and integration must be strengthened in the region. The countries' achievements in the economic sphere have tended to push social development into the background. No one denies, however, that the fruits of economic growth should gradually spread throughout the population, improving the quality of life. Otherwise, growth and gains in competitiveness will not be sustainable over time. Another condition in this regard is the need for countries to maintain economic stability, political governability and social integration. Clearly, this scenario is a highly complex one in which the greatest possible coherence must be maintained between economic and political relations, on the one hand, and between economic policy and its real and expected social benefits, on the other. In this sense, the levels of equity reached constitute a basic support for the stable harmonization of a model that must successfully sort out the difficulties posed by growth, competitiveness, macroeconomic stability, political governability and social integration.

In the medium term, social equity determines and influences competitiveness, since the latter cannot be maintained at the expense of workers' wages, or it will necessarily have a regressive effect on the distributive structure that will frustrate efforts to improve the population's quality of life. Moreover, if the resources generated do not translate into technical progress or are diverted or transferred out of the country, "not only the level of equity but the level of competitiveness itself will deteriorate as a consequence of the declining importance of the cost of labour as a stimulus to competition in new production processes. In this case what we have is a spurious form of competitiveness, which should not be mistaken for the genuine competitiveness which stems from the absorption of technological change" (ECLAC, 1990, p. 77).

The growth potential offered by the process of export-based linkage with the world economy has resulted in the notable development and revival of a wide range of sectors and activities in both production and services. Examples include the development and technical advancement of the truck-farming, fruit-growing, agricultural and forestry sectors; diversification and transformation of the industrial and service sectors; improvement and modernization of the public sector and of government agencies; modernization of the financial system; and advances in the area of communications. In general, ECLAC maintains, "the 1980s represented, in historical terms, a turning point between the previous pattern of development of Latin America and the Caribbean and a phase which is not yet fully defined but will undoubtedly be different and which will mark the future development of the region" (ECLAC, 1990, p. 12), of which cooperation among the countries of the region will be an important component.

This turning point constitutes a shift to a new context in which the need to change current production structures becomes an imperative. This change determines new development policies and a different framework for policies on international cooperation, in which TCDC in the region must be

reassessed and revitalized. The changes this entails include the introduction of new agents, the redefinition of functions, changes in educational systems, absorption of technology, tax reform, modernization of the health sector and changes in labour relations, in order to meet the requirements of the emerging economic, political and social order.

2. Updating the premises of the Buenos Aires Plan of Action

To determine how TCDC could help consolidate the process of changing production patterns with social equity, it is useful to re-examine the overall approach taken in developing TCDC, which was essentially structured by the Buenos Aires Plan of Action, adopted by the United Nations General Assembly in December 1978. From the outset, it is clear that the regional and international situation has changed dramatically since the second half of the 1970s, when the Plan was discussed and adopted. Many of the Plan's premises now appear to reflect wishful thinking rather than actual information on the real behaviour of the agents and processes through which TCDC progressed over time.

For example, the Plan assumed that there was a clear and growing political will among the Governments of developing countries to cooperate among themselves. The corollary of this basic assumption was the idea that TCDC could be conceived as a unilateral process of providing cooperation (where one country supplied technical cooperation to a receiving country, which did not provide cooperation in return). Thus, the Buenos Aires Plan of Action basically assumed that TCDC was provided gratis, according to the principle of collective self-reliance. Before long, however, these assumptions were found to be less widely accepted than originally believed. This does not mean that the relatively more advanced developing countries renounced their role as potential suppliers of cooperation, but only that the requirement that TCDC be provided gratis was not entirely realistic.

The Plan also assumed that developed countries were willing to participate in TCDC and to lend significant support to developing countries' efforts to cooperate among themselves. This, too, was an unrealistic assumption, since developed countries have actually associated themselves with these efforts in only a very few cases and specific situations. In general, they have remained aloof, arguing that TCDC should exclusively concern developing countries.

Another idea underlying the Plan was that since one of the main obstacles to the progress of TCDC was the lack of information, more flows of TCDC would result from the installation and operation of vast information systems to match the demand for cooperation with the supply. Fifteen years later, it is clear that the role of information is somewhat more complex than was imagined. The operation of information systems does not in itself guarantee an increase in TCDC; another precondition is that institutional arrangements must be made **within the countries** to feed, update and use those systems selectively and efficiently.

Furthermore, the international context in which the Plan was conceived was drastically altered by the crisis of the early 1980s. The constraints imposed by external debt and macroeconomic adjustment curtailed resources so severely that the countries could not afford to finance even the simplest TCDC activities, such as payment of subsistence allowances for experts in countries receiving cooperation.

The 1990s began in a profoundly changed international environment which, in the case of Latin America and the Caribbean, presents specific features that are clearly defined in the strategy for changing production patterns with social equity, as noted earlier. These changes have created a need to update and

revamp the guiding criteria of the intraregional cooperation strategy, to reflect the new setting for regional development. In the Commission's view, TCDC has a significant role to play in enabling countries to take advantage of opportunities for cooperation on key aspects of the proposal on changing production patterns with social equity, such as the absorption and transfer of technology, the development of new markets, the exchange of innovative experiences in educational systems and their support for changing production patterns, trade negotiations with economic blocs and enhancement of international competitiveness in general.

In the Commission's sphere of work, the specific areas that should have a strong TCDC component to maximize national efforts cover a very wide spectrum. Some of these priority areas for intraregional cooperation can be summarized as follows: information on markets and technologies; agreements for the reduction of business risks; consumer protection policies; industrial property and transfer of technology; labour relations; external integration strategies; social programmes and poverty targeting; educational administration and modernization; health systems and administrative reform; new health technologies; technical-professional training programmes; systems and methods to finance housing; methods and techniques for urban planning and regulation; urban productivity and land use; information systems and project banks; national investment funds; environment and natural resources; transfer of technology for clean-up activities; and exploitation and production of raw materials for the new materials market.

In general, furthering the process of changing production patterns and achieving greater social equity in the distribution of its benefits are tasks that can be facilitated through the exchange of specific experiences and the implementation of joint activities by relevant agents in different countries. As noted earlier, the absorption of technical progress is a requirement for achieving or maintaining competitiveness.[1] Merely gaining access to more dynamic markets calls for the absorption of technologies, which are under highly transnationalized control. Thus, without a regional effort in the area of research and development, supported by regional technical cooperation, it will be hard for the countries of the region to participate dynamically in the expansion of markets (ECLAC, 1990).

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[1] This technical progress should be understood as "the ability to imitate, adapt and develop production processes, goods and services not previously existing in an economy"; in other words, "making a transition to new production functions" (ECLAC, 1990, p. 68).

III. SOME STRATEGIC CRITERIA FOR INTRAREGIONAL COOPERATION IN THE 1990s

Taking full advantage of the potential of TCDC in implementing and consolidating the strategy of changing production patterns with social equity requires the definition of guiding criteria for such cooperation that duly reflect the most innovative features of the development scenario for the 1990s. Especially important in this regard are the institutional changes taking place in the countries of the region and the emergence of new agents of cooperation.

An initial consideration is the reformulation of the State's role in the development process; this requires, on the one hand, a profound change in the dimensions of the State apparatus and, on the other, a substantial improvement in the State's capacity to regulate the changing of production patterns effectively and to lead the way towards greater social equity. In practice, the process of State reform is prompted by the need to adjust institutional arrangements to cover the many new development issues that are emerging on the international scene. A case in point is the implementation of economic adjustment policies in the region, considering their social implications and the political factors that condition them. Another example of a similar nature is the question of how to meet the challenges of international competitiveness, given the fact that the region's economies are basically exporters of raw materials. The issue of environmental sustainability emerges as both a hindrance and a stimulus for the progress and development of production systems, and will therefore require considerable efforts to reach consensus on how to harmonize these two perspectives. The need to include specific social groups, such as young people and ethnic minorities, as well as the gender dimension, in the various facets of social life also makes new institutional demands on the State, especially with regard to the best and most viable approach to processes and mechanisms of positive discrimination, which form the basis of policies to meet these needs. Intraregional cooperation can provide valuable support for the implementation of this varied institutional agenda, in so far as exchanges can be intensified in areas directly related to these kinds of State reform.

Another emerging characteristic that is coming to the forefront of public policy is the increased importance of local governments. At the institutional level, this means adopting policies to decentralize political systems and to target social investment more precisely. In this regard, the actions of public and private agents are placing a marked and persistent emphasis on the local dimension. This means that all agents of development, not just the State, should initiate a dialogue with a wide range of local actors that legitimately perceive development problems from a micro-social perspective that usually is not even detected by the vast majority of government entities, which operate in traditionally centralist systems; this experience has predominated in the region, even in countries with federal political constitutions. Concretely, this means that the actions of a State in the process of reform must consider incorporating local communities in all phases of the design, execution, follow-up and evaluation of government policies, and at all levels of the State system.

Another point that should be emphasized is the importance of the private sector in the process of economic and social modernization, in both the sphere of business per se and that of non-governmental organizations. This means that these agents must be given opportunities to take action and initiatives and to become organically incorporated into cooperation processes, according to each country's characteristics. In particular, the private sector's potential contribution to cooperation activities should be re-evaluated, mainly with respect to the transfer of business administration and management techniques. One especially relevant consideration in this regard is the possibility of transferring these techniques and methods from the private sector to the public sector. In some specific cases, the effects of processes of this kind are already apparent, inter alia in the form of project banks and social investment funds and systems.

Lastly, the fourth strategic criterion that should orient TCDC policies is the fuller incorporation of social programmes as a priority area for intraregional cooperation. In practice, this involves making TCDC an increasingly effective instrument for contributing to the anti-poverty effort, which appears to be an endemic feature of development experiences in the region. Of course, this new dimension of TCDC should reflect the imperatives of the other strategic criteria mentioned above; specifically, it should incorporate social groups living in poverty as agents of cooperation. The aim is not to use cooperation as a form of welfare, but rather to design cooperation policies that allow poor sectors and groups to get involved in anti-poverty initiatives.

IV. STRATEGIC AREAS FOR COOPERATION

A. PRODUCTION SECTORS

The production sector comprises a number of subsectors, such as trade and exchange rate policies, technological policies, manpower training programmes, promotion and establishment of enterprises and micro-enterprises, natural resources management, financial systems and public enterprises. The basic link among these subsectors is the need for better organization of production and marketing on the part of enterprises, be they leading corporations or micro-enterprises.[2] This situation characterizes a number of potential areas and sectors for cooperation.

In the macroeconomic sphere,[3] cooperation should be emphasized in the area of fiscal policy, including issues such as the modernization of tax systems with a view to simplifying them and increasing tax collection, and the design of public-sector investment policies.

Intraregional cooperation could also play a major role in defining and reaching agreements on tariff, para-tariff, exchange rate and export promotion policies (intraregional and extraregional markets).

In relation to technological policies, cooperation agreements are needed on the absorption of technology to achieve sustained increases in productivity. These agreements could include: i) cooperation in the transfer of technology and support for technology-based training programmes in business administration; ii) cooperation in the transfer of methods of organizing work and labour productivity under the corresponding technology policies; iii) identification of prospects for cooperation and the exchange of experiences in technology absorption and innovation in industry, trade and services, in order to complete and adapt technological infrastructure in specific, high-priority economic activities; iv) exchange of experiences with policies on State incentives for innovation activities in technologically advanced firms; v) cooperation in technological information and production networks, including agreements on various institutional arrangements for the establishment of a network of linkages between the research system and the rest of the technological infrastructure, on the one hand, and the production sector, on the other, to promote close contact between users and producers of goods and services; and vi) cooperation in financing systems for technological research and development.

Cooperation in technological innovation in the region should include close linkage among the various agents that participate in innovation. Thus, clear mechanisms for linkage between the research

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[2] See ECLAC (1992c, p. 18).

[3] The guidelines proposed are discussed further in ECLAC (1990). See also ECLAC (1992b) (which, however, is not directly considered in this document).

system and businesses are needed, such as university offices for the transfer of technology, research centres or consortia managed on a cooperative basis or through agreements between universities and groups of firms, associations between financial entities and universities, etc. In most cases, the lack of a clear awareness of what is being researched and of what and how to produce creates a gap between the objectives of academe and the needs and objectives of the production sector. To narrow this gap, joint administrative and financial authorities should be established, and the industrial and business sector should participate actively in innovation projects in the academic sphere.

Some of the challenges faced by the industrial sector are clearly relevant to intraregional cooperation, such as the selection of areas for government intervention by combining the criteria of neutrality, market stimulation and strategic selectivity to promote coordination and liaison among sectors and producers with little possibility of communicating with each other (ECLAC, 1990); institutional restructuring in strategic areas of the public sector; and emphasis on institutional innovation in the management of the production system. In this regard, the topics that are relevant to intraregional cooperation include: i) strengthening of training activities to support the formulation of policies for setting up businesses and developing a technological, marketing and international financing infrastructure; ii) modernization of the telecommunications and data processing infrastructure in order to meet the challenges of production and competitiveness; and iii) controlling the environmental effects of industrial activity, including experience in the transfer of environmentally sound technologies and policies for the rational distribution of industrial activity to improve the dynamic and economic balance between central structures and regional economies.

Small and medium-sized firms are particularly important in the context of changing production patterns with social equity, "since they employ the bulk of the labour force and account for a good proportion of regional output" (ECLAC, 1992c, p. 18). Possibilities for cooperation to stimulate and support the establishment of micro-enterprises through concrete programmes include: i) providing advisory services and exchanging experience in the design and establishment of social investment funds for micro-enterprises, with emphasis on small-scale production projects, which open up opportunities for initiatives on the part of highly diverse production sectors; ii) cooperation in developing intraregional markets to support micro-enterprises; iii) cooperation in technological innovation and transfer of technology in different areas and levels of production, including technical, financial and marketing services aimed at improving business management; iv) cooperation to support training programmes for potential small-scale entrepreneurs and self-employed workers; and v) exchange of experiences in linking non-governmental organizations that support micro-enterprises with the public sector (ministries, specialized offices, regional and municipal governments).

In relation to agricultural policies (ECLAC, 1990), both the intersectoral linkage and the international competitiveness of agriculture must be strengthened, inter alia by correcting the urban/industrial bias as regards economic investment and social expenditure, as well as the marked concentration on a limited number of goods and geographical areas and on a certain kind of agricultural producer, taking into account the specific features of the agricultural sector. Intraregional cooperation could support these efforts in areas such as: i) cooperation agreements to support the modernization of small- and medium-scale agriculture; ii) cooperation in the maintenance, extension and development of small hydraulic works for the integral management of water resources; iii) exchange of experience in formulating efficient production, transport and marketing logistics for agricultural products; iv) sharing of techniques for farming in mountain areas, which cover a large proportion of the Andean and Central American countries; and v) cooperation to support efforts to strengthen agriculture's productive links with industry and services, since the dynamism of the services sector should be used to introduce technical

progress into agricultural activities in the areas of cadence of operation, programmed volumes of production, more homogeneous quality standards, etc. (ECLAC, 1990, pp. 128-131).

Basic support services for productive linkages are another area of growing importance. The modernization of this service sector requires sustained cooperative efforts, since the progress and computerization of communication technologies require that systems be operated at similar and compatible levels. The same is true of transport infrastructure, with respect to agreements on transboundary movements, licences, port administration, charges and reducing bureaucratic formalities in general. In the services sector, areas relevant to intraregional cooperation include the following: i) administration of industrial and residential energy systems, including the exchange of experience on incorporating the private sector into these activities; ii) exchange of experience with systems of charging rates for industrial and residential energy services, with a view to modernizing these systems and increasing their efficiency and transparency for users; and iii) exchange of experience to enhance the efficiency of public administration of activities associated with this sector, such as transboundary communications and transport, joint management and administration of ports, road administration and maintenance (ECLAC, 1993) and the modernization of financial services, including more expeditious intraregional interconnection of banks.

As to the institutional context in which production sectors operate, measures to modernize the style and modalities of State regulation are needed. The changes required in the institutional structure to ensure that State management has a positive impact on the efficiency and effectiveness of the economic system as a whole can be supported through cooperation activities for strategic public-sector management at the central (ministerial), regional, departmental and local (municipal) levels, to further the process of decentralizing the State in terms of both resources and the location of administrative authority. Also noteworthy are cooperation activities for better linkage among short-, medium- and long-term decision-making processes at the different levels.

B. ENVIRONMENT AND NATURAL RESOURCES

In the natural resources sector, the strategy of changing production patterns with social equity demands that development be sustainable, so that it harmonizes the interests of economic growth, social equity and environmental viability.

To ensure that growth is maintained over time, considering that the region's economies are basically exporters of raw materials, the use of natural resources cannot reflect a strategy of maximum exploitation that addresses only short-term interests. The use of these resources should be subject to careful management and its pace should reflect the availability of resources and market prospects, taking into account the capacity for reproduction or replacement depending on whether renewable or non-renewable resources are involved, the time required to exploit them and the resulting environmental impact.

It is also important to consider that political and administrative boundaries do not always coincide with the limits of natural systems; this poses the problem of shared ecosystems, which can only be solved through cooperation agreements between the countries involved (ECLAC/UNEP, 1990, p. 102).

Consequently, countries should actively explore possibilities for cooperation in areas related to the use and exploitation of natural resources, such as: i) policies for rational exploitation and conservation of natural resources and for the development of production processes that emphasize the structuring of production networks spatially linked among industry, services and natural resources, to ensure that greater value is attached to resources and to further a process of environmentally sustainable technological change; ii) integral management of resources, including the management of river basins or specific ecosystems (ECLAC, 1992a), through control mechanisms, conservation and resource recovery policies, user participation, etc.; iii) financing mechanisms to regulate the exploitation of natural resources, including charges and incentives, systems of control, technical capacity and sound technology, etc.; iv) exchange of experience in taxing activities that pollute the environment or preventing the over-exploitation of natural resources. The "polluter pays principle" is sometimes enforced through fishing licences and bans on the exploitation of certain species, afforestation subsidies, tolls on transport or market restrictions (product rejection); and v) information systems for the regulation and control of natural resource exploitation, for which scientific knowledge on ecological behaviour, appropriate regulatory instruments and technical standards, forms of organization, etc., are needed.

With respect to issues related to biodiversity and biotechnology,[4] the countries of the region have already been called upon to intensify cooperation for the protection of existing biological diversity in the region, through the application of common policies on its exploitation and marketing. The exchange of experience must therefore be promoted in areas such as regulation and control of the use and exploitation of genetic resources in the region and of the marketing of species and derivatives extracted from the region's biotic resources. To that end, research in the sector should be strengthened to yield more knowledge about the biotic endowment of the countries of the region.

The broad issue of the environment also presents very diverse and promising opportunities for intraregional cooperation. Of primary importance are the issues of pollution and environmental protection. Although the environmental impact of exploiting natural resources is not yet fully understood, the problem of pollution is generally worse in urban centres, where it presents specific characteristics. The main areas for cooperation in tackling environmental problems in cities concern the siting of productive activities and the use of land, the demand for inputs to maintain residential and productive activities and the discharge into the natural environment of wastes produced by urban activities.

The following specific areas for cooperation can be identified: i) exchange of experience on urban technical standards for the control of hazardous industrial wastes and emissions, technologies for such control, ways of financing and organizing it, its limitations, etc. (ECLAC, 1991a); ii) transfer of appropriate clean technologies for rural and urban industrial use; iii) training in the use of technology, adaptation of technical services and assistance, spare parts, guarantees, and periodic updating and modernization of the technology transferred; iv) cooperation agreements on import regimes and preferential tariff treatment for technologies and services that fall into this category, to facilitate as much as possible the transfer of clean and clean-up technologies to the region; v) exchange of experience with financing and investment modalities for research and development of appropriate (clean and clean-up) technologies, with private-sector participation and government support, to integrate both sectors into the effort to care for the environment; vi) exchange of experience in recycling household and industrial solid wastes (such as paper and paperboard, glass, iron, plastic, organic matter or compost), including the type

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[4] Guidelines for cooperation based on the agreements reached under the Tlatelolco Platform on Environment and Development. See ECLAC (1992d).

of technology used, the profit margins obtained, etc.; vii) cooperation agreements to regulate transboundary movements and management of hazardous wastes and to define appropriate procedures concerning responsibilities, compensation for damage, etc. (ECLAC, 1992d); and viii) cooperation agreements to establish appropriate mechanisms to prohibit the marketing of substances, products, processes and technologies which are harmful and dangerous to the environment and which are banned in the developed countries that produce them (ECLAC, 1992d).

C. SOCIAL SECTORS

Because of their importance, the social sectors identified herein urgently require cooperation in the region. The pressing needs of the health sector, which were dramatically illustrated by the scourge of cholera in recent years that mainly affected the poorest sectors, constitute a clear example. Although progress has been made in education, in terms of expanding the coverage of primary and secondary education in the region, the deficiencies that remain are preventing the countries from meeting the challenge of keeping up with technology in the areas of production and the international integration of regional economies without ignoring the need for artistic and cultural expression in this sphere.

In the housing sector, the shortage of dwellings and the poor quality of housing and human settlements (infrastructure and equipment), added to the proliferation of shanty towns and slums, are symptoms of a situation that affects most countries in the region and must be corrected through persistent, effective action.

Policies are also needed for ethnic minorities (which are majorities in some countries), to help them escape from poverty and, at the same time, to protect their cultural life. Special policies, programmes and plans must also be designed to improve women's situation, social status and treatment in the workplace (including wages), and to combat domestic abuse or violence against women, as well as discrimination against pregnant women in the workplace and the lack of protection in that regard.

Cooperation agreements should also provide for the integration of disabled persons into various activities, both labour-related and social. Transportation, the use of public telephones, access to buildings and elevators and even crossing the street pose serious difficulties for the disabled if they are not designed with the needs of this social group in mind, and can constitute real impediments to their performance at work and participation in social life, thereby accentuating their marginalization. Businesses and the educational system also have responsibilities in this area.

Policies and programmes for integrating young people into society and the labour market and addressing their aspirations and achievements in terms of study, work, etc., are other potential areas for cooperation. Policies and programmes to protect children offer opportunities for cooperation that cannot be ignored, and call for more solid, effective exchanges on how to safeguard every child's future, in the interest of the region's future.

In general, different forms of cooperation and the exchange of experiences should be stimulated on adjusting social services to the needs of poor sectors and promoting social organization to encourage mutual assistance and ensure that the needs of the most disadvantaged are duly represented to the State. Regional and subregional cooperation through concrete actions based on sectoral criteria that take the competitiveness and profitability of productive activities into account and include active participation by

businesses, institutions and non-governmental organizations in the region could be an effective instrument in the effort to improve the population's living conditions (ECLAC, 1990).

In the **education** sector, ECLAC has identified some priority areas in which regional and subregional cooperation could come to play an important role in defining sectoral policies in the context of changing production patterns with social equity: first, human resources training in the countries of Latin America and the Caribbean, to take better advantage of the installed capacity of universities, academic centres and technical-professional training institutes in the region; second, linkage between the educational and knowledge-generating system, on the one hand, and the productive or social development sectors, on the other; and third, research on education as such and on the process of generating, disseminating and using knowledge.[5] In this context, the following spheres of cooperation can be identified:

i) improvement of the quality of education at all levels, from primary to higher education, through sustained efforts in various areas of the educational system;

ii) institutional reform to adjust the system to the demand for modernization. This requires that policies be managed sectorally, though without losing sight of the overall vision of the education system. In general, educational reform includes not only the review and modification of curricula, but also a profound revamping of the system's administration. Countries can better equip themselves to meet the challenge of decentralizing educational administration by exchanging experiences in this field (for example, in municipal administration of education);

iii) in relation to financing, the fiscal sector has traditionally been the main source of funding for education.[6] However, the private sector represents an alternative means of generating contributions to offset the budgetary constraints and shortfalls that plague this sector. Cooperation to increase private contributions to education can take various forms, but must actively incorporate the different agents of education involved;

iv) educational research[7] is an integral part of a sectoral strategy to meet the demands of modern society effectively. Research should preferably be oriented towards linking the scientific and technological system with the educational system and the production apparatus;

v) cooperation agreements on technical-professional training could significantly broaden the scope of regular and vocational education programmes that target the production and service sectors, to reach different social and institutional sectors.

In the area of **housing**, intraregional cooperation was strengthened by the convening of the first Regional Meeting of Ministers and High-level Authorities of the Housing and Urban Development Sector in Latin America and the Caribbean, held in March 1992 at ECLAC headquarters in Santiago, at the

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[5] For more details, see ECLAC/OREALC (1992).

[6] Of course, "private, business and household contributions, and external funds from international cooperation entities, have also participated in specific ways" in education financing (ECLAC/OREALC, 1992, p. 210).

[7] The guidelines for cooperation noted here are based on those in ECLAC/OREALC (1992), p. 169.

initiative of the Government of Chile (ECLAC, 1992e). After analysing the situation of the sector on the continent, the participants at the meeting decided to establish a permanent, ministerial-level body for coordination and the exchange of experiences. It appears, from these discussions and from specialized literature on the subject, that cooperation in the area of housing could produce positive results for the countries of the region.

Cooperation and the exchange of experiences on systems to finance housing should be effectively promoted, since they can help countries obtain more and better dividends from existing policies, suggest possible changes to those policies, etc.

Low-cost housing is part of the strategy for solving the housing coverage problems affecting Latin America and the Caribbean. This area opens up a broad spectrum of possible cooperation initiatives to build, improve and maintain dwellings, and to supply the necessary materials.

The provision of housing is a central component of the management of urban settlements, although urban problems have specific features that go beyond housing. Urban policies and housing policies should therefore be combined and coordinated.

In sum, addressing the problem of housing requires not only land use management, infrastructure, service provision and financing, but also efforts to gradually form linkages between this sector and the production system, including the modernization of public-sector management and community participation in plans for housing improvements or solutions, especially in low-income sectors. These efforts should be understood in the context of the progressive regulation and planning of human settlements, which links this sector's interests to the imperative of achieving a better quality of life for all. The definition of a housing strategy and the exchange of regional experiences are essential for progress in solving housing problems.

Because social development necessarily comprises the improvement of the coverage and quality of **health** services, this area is a high priority for the region. Although some progress has been made in concluding cooperation agreements,[8] the latter should be strengthened through careful follow-up and evaluation of their results. Below are some areas for cooperation in this sector:

i) research on various dimensions of health issues, ranging from the formation of a specialized regional research body to the exchange of materials and publications on strategic topics in the sector;

ii) in the health sector, the modernization of management and innovation and the process of technology transfer require trained personnel in order to be effective. Regional cooperation agreements on training can appreciably intensify the improvement of the quality and coverage of sectoral training;

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[8] Under the Convergence Project on technical cooperation among countries for health technology development, and pursuant to decisions 287, 304 and 319 of the Latin American Council of SELA, PAHO/WHO, SELA and UNDP convened four subregional meetings —for the Andean Group, the Southern Cone, Central America and the Caribbean— to identify concrete opportunities for cooperation and design TCDC project profiles of interest to the participating countries. These meetings served as forums for preliminary negotiation prior to the Regional Meeting on TCC for Health Technology Development, held at Santiago, Chile, from 6 to 10 July 1992, where participants identified regional and subregional projects and concluded bilateral agreements.

iii) in the area of occupational health, actions can be taken to improve working conditions and their impact on health, on the one hand, and the exchange of ideas on how to meet the preventive and curative health needs of employees and workers, on the other;

iv) cooperation on urban health should include environmental and waste-management components, as well as the population's quality of life and the management of settlements, linking the public sector to the private sector and including community participation in all these areas;

v) the potential for effective technological innovation in the sector depends more on the transfer of technology between countries than on imports of technology from developed countries. Cooperation is an essential factor in supporting the absorption of technology in the sector. Noteworthy in this regard are the agreements reached in the area of exchanging technologies to set up a subregional network of epidemiological control of cholera, the progress made in regard to cooperation for the diagnosis of malaria and the exchange of radiographic and ultrasonic techniques.

D. OTHER SOCIAL SECTORS

To be effective, intraregional cooperation must be extended to all social sectors with needs or social deficiencies that can be remedied or alleviated through specific policies and programmes. On the basis of this premise, more effective cooperation among the countries of the region should be promoted in the following areas:

i) exchange of experiences in labour relations, productivity and training, including the issue of workers' participation in decisions regarding their firm's productivity. The issues of unionism, labour integration and relations between workers and management should be considered in efforts to improve the production process and working conditions, in order to achieve greater social equity, which should be explicitly incorporated into production processes;

ii) likewise, women's role in production and the improvement of their status in terms of policies and treatment in the workplace call for the promotion of exchanges of experience concerning domestic work and recognition of women's labour rights, and, by extension, the rights and protection of pregnant women, both in and outside the workplace;

iii) similarly, the exchange of experience on policies oriented towards young people should be strengthened in the areas of vocational training, improvement of income, recreation and leisure, as well as the creation of opportunities in general;

iv) in relation to the training and integration of disabled persons in the workforce, steps should be taken for the exchange of experience in improving their status and treatment in the region's societies. Subsequently, countries should test different formulas for addressing the problem in the various spheres in which it presents itself (education, employment, the family, civil legislation).

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